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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,833	02/09/2004	David C. Barry	CRD0711DIV2	9774

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EXAMINER	
POUS, NATALIE R	

ART UNIT	PAPER NUMBER
3731	

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/774,833	BARRY ET AL.	
	Examiner	Art Unit	
	Natalie Pous	3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,6,10-12 and 14-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6,10-12 and 14-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/23/05, 6/1/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 7, filed January 19, 2006, with respect to the 35 U.S.C 112 rejection of claims 5, 7 and 11 have been fully considered and are persuasive. The U.S.C 112 rejection of claims 5, 7 and 11 has been withdrawn.

2. Applicant's arguments, see pages 8-13 of remarks, filed January 19, 2006, with respect to the rejection(s) of claim(s) 1-13 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Engelson (US 5944733).

Terminal Disclaimer

3. The terminal disclaimer filed on January 19, 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 6,227,126 and US 10/7722335 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

4. The terminal disclaimer filed on January 18, 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date

of US 6,227,126 and US 10/774833 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims ... are rejected under 35 U.S.C. 102(e) as being unpatentable over Engelson (US 5944733).

Regarding Claim 1, Engelson teaches a coil deployment device for use in placing a coil at a preselected site within a vessel comprising; an elongated flexible positioning member comprising a lumen (116) and proximal and distal ends; an embolic coil (102), An elongated flexible delivery member (120, 106) being slidably positioned within the lumen of the positioning member, a heating element (108) mounted at the distal end of the delivery member (120, 106); a non optical energy transmission conductor (106) along the lumen of the delivery member and extending from the proximal end to the distal end of the delivery member, being coupled to said heating element (108, fig. 2a) said energy transmission conductor coupled to the heating element (fig. 2a); a non-metallic heat responsive coupling member (110) coupled to the heating element and coupled to the embolic coil by a hot melt adhesive bond normally retaining the embolic coil (102) by an adhesive bond (Column 7, proximate lines 54-60), said heat responsive coupling member being a biocompatible hot melt adhesive (Column 7, proximate lines 54-57), the adhesive exhibits the characteristic of, upon being heated, releasing the adhesive bond and the embolic coil at the preselected site (Column 8, proximate lines 56-66)

Regarding Claim 10, Engelson teaches a coil deployment device comprising; an elongated flexible positioning member comprising a lumen (116) and proximal and distal ends; an embolic coil (102), An elongated flexible delivery member (120, 106) having a lumen (fig. 3), positioned within the lumen of the positioning member; a heating element (108) mounted at the distal end of the delivery member (120, 106); a non optical energy transmission conductor (106) along the lumen of the delivery member and extending

from the proximal end to the distal end of the delivery member, being coupled to said heating element (108, fig. 2a) said energy transmission conductor coupled to the heating element (fig. 2a); a non-metallic heat responsive coupling member (110) coupled to the heating element and coupled to the embolic coil by a hot melt adhesive bond normally retaining the embolic coil (102) by an adhesive bond (Column 7, proximate lines 54-60), said heat responsive coupling member being a biocompatible hot melt adhesive (Column 7, proximate lines 54-57), the adhesive exhibits the characteristic of, upon being heated, releasing the adhesive bond and the embolic coil at the preselected site (Column 8, proximate lines 56-66)

Regarding Claim 14, Engelson teaches the device of claim 10, wherein the hot melt adhesive, upon being heated, softens to stretch and release the adhesive bond (column 8, proximate lines 56-66)

Regarding Claim 15, Engelson teaches device of claim 14, wherein the hot melt adhesive has a lower yield strength, upon being heated, than prior to being heated (it is noted that the adhesive inherently has a lower yield strength when it is softened by heating)

Regarding Claim 17, Engelson teaches the device of claim 10, wherein the adhesive bond, upon being heated, breaks when said delivery member is retracted with respect to said positioning member to release said embolic coil (fig. 2b)

Regarding Claim 18, Engelson teaches the device of claim 17, wherein the release of said embolic coil comprises disengaging said heating element from said embolic coil by breaking said adhesive bond (Column 8, proximate lines 55-66).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 3, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engelson as a matter of design choice. Engelson teaches all limitations of preceding dependent claim 1 and further teaches, wherein the hot melt adhesive has a lower yield strength, upon being heated, than prior to being heated (it is noted that the adhesive inherently has a lower yield strength when it is softened by heating). Engelson fails to disclose wherein the heating element is an electrically heated coil. Since the application does not disclose that an electrically heated coil provides any advantage over a radio-frequency heated element, and it appears that the device of Engelson performs the task of heating the hot melt adhesive to release the embolic coil at the desired location, it would have been an obvious matter of design choice to provide the device of Engelson with an electrically heated coil as a heating element.

8. Claims 5, 6 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Engelson as a matter of design choice. Engelson teaches the device of preceding dependent claim 1 as previously described, and further teaches wherein said adhesive

is a hot melt adhesive that is bonded to the embolic coil prior to exhibiting said characteristic of releasing upon being heated (fig. 1a)

Engelson however fails to disclose specifically wherein the yield strength is reduced at least 50% when heated about 65 degrees Celsius, or wherein said hot melt adhesive softens so that it may be stretched upon being heated to at least about 63 degrees Celsius. Engelson does disclose a number of possible hot melt adhesives, and further discloses wherein each of these has a proper transition temperature (wherein the thermoplastic softens and releases the adhesive bond) for safe, efficient and reliable detachment of the vasoocclusive member (Column 7, proximate lines 54-66). It would have been an obvious matter of design choice to choose a thermoplastic wherein the yield strength is reduced at least 50% when heated about 65 degrees Celsius, or wherein said hot melt adhesive softens so that it may be stretched upon being heated to at least about 63 degrees Celsius, since it appears that the device of Engelson performs the task of heating the hot melt adhesive to the proper temperature for softening and releasing the coil member equally well as that disclosed in the application, and further since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie Pous whose telephone number is (571) 272-

6140. The examiner can normally be reached on Monday-Friday 8:00am-5:30pm, off every 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NRP
3/20/06

(JACKIE) TAN-UYEN HO
PRIMARY EXAMINER
3/28/06